

ABSTRACT OF THE DISCLOSURE

An image processor performs multilevel error diffusion processing and is provided with: a quantizing unit that quantizes pixel data constituting image information based on output values distributed at predetermined tone differences; an error detecting unit that detects a quantization error of the pixel data; a peripheral error calculating unit that integrates the quantization error of the pixel data detected by the error detecting unit with respect to a quantization error of peripheral pixel data; and an error superimposing unit that adds the integration error calculated by the peripheral error calculating unit to the pixel data input next. The image processor is further provided with: a random noise generating unit that generates random noise in accordance with the tone level of the input pixel data; and a noise superimposing unit that superimposes the random noise generated by the random noise generating unit on the pixel data.